save him a tremendous amount of searching the literature, which is, in many cases, rather inaccessible. He will have the main facts before him even on controversial points and will know where further research is necessary. He will perforce have to draw his own conclusions on many things, so fairly have the various sides of the subject been presented. This is perhaps the greatest compliment that a book of this type can receive.

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INORGANIC CHEMISTRY

A Textbook of Inorganic Chemistry. By FRITZ EPHRAIM. English edition by P. C. L. THORNE and E. R. ROBERTS. Fourth edition, revised and enlarged. 921 pp. New York: Interscience Publishers, Inc. $8.75. London: Gurney and Jackson. 28 shillings net. 1943.

THIS well-known text now appears in a fourth edition with only minor revisions and the addition of a dozen pages of new material. The recent work on radioactivity and isotopes has been included and descriptions of new compounds and reactions have been given. The progress in the field of artificial radioactivity is so swift that the discussion (p. 90) on nuclear fission, while it reflects opinion in 1940, does not correspond with the judgment of 1943 concerning the possibility of an era of atomic energy, which now appears not too far distant.

The outstanding advantage of this text is that it presents the field of inorganic chemistry in all its varied aspects from a consistent logical standpoint with a mode of presentation which departs refreshingly from the multitudes of inorganic chemical texts that have been written around a single traditional pattern. Ephraim's text is exactly suited to the senior student who wishes to refresh and refurnish his mind concerning basic inorganic chemistry in preparation for advanced examinations. It should be required reading for all professors of general chemistry, the exercise to be repeated as each new edition appears. The English editors deserve our best thanks for continuing to make this text accessible a decade after the original author's death and for their care in compilation and revision.

HUGH S. TAYLOR

REPORTS

THE AWARD OF GUGGENHEIM FELLOWSHIPS FOR 1944

THE sum of $200,000 has been appropriated this year by the John Simon Guggenheim Memorial Foundation for fellowships exclusively for men and women who are serving the nation in the war effort, in addition to sixty-nine fellowships with stipends of $155,000 to Americans and Canadians to assist their work of scholarship and artistic creation. All the fellowships are awarded, in wartime, subject to any national service to which the recipients may be called; but if any fellow is called into such service the foundation will make his fellowship available to him when he receives his discharge.

The appropriation of $200,000 for post-service fellowships is in addition to the usual budget. These funds will be used to grant fellowships to young scholars and artists who are serving the nation in the armed and other governmental services, including those doing war research under contracts made by the Office for Scientific Research and Development and similar agencies. They will be granted upon the same basis as the other fellowships, to persons who have demonstrated unusual capacity for research and artistic creation. They will be granted before the end of the war and will be made available to the recipients as soon as they are discharged from service. Five such fellowships have been awarded. They include one to Joseph Hickey, ornithologist, engaged upon war research at the University of Chicago. Mr. Hickey, who is the author of "A Guide to Bird Watching," proposes to make an analysis of approximately 250,000 records of banded birds to learn their life expectancies in the wild, their population turnover in nature and other facts of value to conservationists, and the mapping and charting of migration routes, especially for those species that are becoming endangered by civilization.

Awards of fellowships for the year 1944–45 include in the sciences:

DR. T. C. SCHNEIRLA, associate professor of psychology, New York University, and associate curator of animal behavior, the American Museum of Natural History, New York City: A study of the relationship between instinct and learning in insect psychology. The work will be based chiefly on his study of the behavior of army ants on the Isthmus of Tehuantepec, Mexico.

DR. R. A. STIRTON, lecturer and curator of fossil mammals, Museum of Paleontology, University of California at Berkeley: Exploration for fossil vertebrates in the Panamanian region of South America to obtain evidence concerning the date and position of water barriers between the American continents in prehistoric times.

DR. AARON J. SHARP, associate professor of botany, University of Tennessee: A study of the plants common to the Southern Appalachians and the temperate floras of the mountains and highlands of Mexico and Central America.

DR. BASSETT MAGUIRE, curator in the New York Botanical Garden, Bronx Park, New York City: Exploration for unknown plants in the interior rain-forest and savannah lands of Dutch Guiana and along the lower Amazon River.

The origins of corn and tomatoes, food plants indigenous to the Western Hemisphere, will be studied by two fellows in Latin America:

DR. PAUL WEATHERWAX, professor of botany, Indiana University, will go to the highlands of Peru and Bolivia, one of the great pre-Columbian centers of agriculture, where corn may have been domesticated.

DR. JAMES ANGUS JENKINS, assistant professor of genetics, University of California at Berkeley, will work in the state of Jalisco, Mexico, on a genetic analysis of varietal differences in cultivated tomatoes.

Fellowships for work in the biological sciences are more numerous than those granted for work in any other field this year:

DR. C. B. VAN NIEL, professor of marine biology, Stanford University, Hopkins Marine Station, Pacific Grove, Calif.: Studies of the new concepts of chemical and physical phenomena with a view to applications in general biochemistry.

DR. FRANK H. JOHNSON, assistant professor in biology, Princeton University: Studies of the fundamental mechanisms that control biological processes and phenomena.

DR. JANET R. MCCARTER, assistant professor, department of agricultural bacteriology, University of Wisconsin: Studies in the field of immunology of infectious diseases, in particular observations on the aerological and biological activities of tuberculo-proteins.

DR. VALY MENKIN, associate in research, Fearing Research Laboratory, Free Hospital for Women, Brookline, Mass.: Studies of the chemical basis of inflammation in wounds.

DR. JOHANNES F. K. HOLTFRETER, Rockefeller Foundation fellow at McGill University, Montreal: Investigations of the causal factors involved in the embryonic development of vertebrates. Dr. Holtfreter is one of the world's leading experimental geneticists. He is of German origin, and was sent from England to an internment camp in Canada, from which he was released upon the appeal of Canadian scholars who admire his work and have the highest esteem for him personally. For the past two years he has worked at McGill University as the guest of the university and under the auspices of the Rockefeller Foundation.

DR. EMMA LUCY BRAUN, associate professor of plant ecology, University of Cincinnati: Studies of the ecology and taxonomy of the deciduous forest.

DR. GEORGE NEVILLE JONES, associate botanist, University of Illinois, Urbana: A study of the botany of the Northwest Coast of America.

DR. TILLY EDINGER, research associate in paleontology, Museum of Comparative Zoology, Harvard University: A study of the development of teeth in the evolutionary line leading from ancestral fishes to mammals.

DR. KENNETH W. COOPER, assistant professor of biology, Princeton University: Cytological studies of the pairing of sex chromosomes in the fruit fly.

DR. WILLIAM N. TAKAHASHI, instructor of plant pathology, University of California at Berkeley (on leave, working at Cornell University: Plant virus investigations, from biochemical and physical points of view.

DR. HUDSON HOAGLAND, professor of general physiology, and director of Biological Laboratories, Clark University: A study of the physiology of psychotic patients.

In the field of mathematics Dr. André Weil, assistant professor of mathematics in Lehigh University, Bethlehem, Pa., will prepare a book on the foundation of algebraic geometry.

This is the nineteenth annual series of fellowship awards by the foundation, which was established and endowed by the late U. S. Senator Simon Guggenheim and by Mrs. Guggenheim as a memorial to their son John. The Guggenheim Fellowships are granted to creative workers in all fields who by their previous work have shown themselves to be persons of unusual ability, demonstrated by the previous production of contributions to knowledge or by the production of works of art. Men and women, married and unmarried, of all races and creeds who are citizens or permanent residents of the United States, citizens of Canada and of certain Latin American countries, are eligible on equal terms. The fellows are normally of ages between 25 and 40 years. The stipends are usually $2,500 a year. The fellowships now announced were granted to American and Canadian scholars and creative workers, while a series of fellowships for Latin Americans will be granted in June.

The fellows chosen this year come from twenty-one States and from three Canadian Provinces. Forty-three fellows are members of the staffs of thirty-seven educational institutions, two are in government employment and twenty-four are free-lance workers. Approximately nine hundred applications for the fellowships were presented this year.

The trustees of the foundation, in addition to Mrs. Guggenheim, are Francis H. Brownell, Carroll A. Wilson, Charles D. Hilles, Roger W. Straus, John C. Emison, Medley G. B. Whelpley and Charles Merz. The committee of selection consisted of Dr. Frank Aydelotte, director of the Institute for Advanced Study, *Chairman;* Dr. Florence R. Sabin, of the Rockefeller Institute for Medical Research; Professor Edwin Bidwell Wilson, of the Harvard University School of Public Health; Professor Linus Pauling, of the California Institute of Technology, and Professor Wallace Notestein, of Yale University.